## IN THE SPECIFICATION

Kindly replace the two paragraphs beginning at page 11, line 15, with the following:

Figure 5 is a chart illustrating the effect of various ~~ETOH~~ EtOH concentrations in the final volume on the life span of fast clotting thrombin when the ~~$CaCL_2$~~ $CaCl_2$ is held constant at 0.023 ~~$\mu m$~~ $\mu M$.

Figure 6 is a chart illustrating the effect of various ~~$CaCL_2$~~ $CaCl_2$ concentrations in the final volume on the life span of fast clotting thrombin when the ~~ETOH~~ EtOH concentration is held constant at 13.6%.

Kindly replace the paragraph beginning at page 11, line 23, with the following:

Figure 8 is a chart describing the contaminating proteins removed from the enriched thrombin fraction after mixture with ~~ETOH~~ EtOH, (13.6% in final volume) and ~~$CaCL_2$~~ $CaCl_2$ (0.23 ~~$\mu m$~~ $\mu M$ in final volume) and filtered for particulate matter.

Kindly replace the paragraph beginning on page 12, line 7, with the following:

Figure 11 is a chart illustrating the conversion/activation period required for the enrichment of a prothrombin fraction and its conversion to stable thrombin by mixture with a precise solution of ~~ETOH~~ EtOH and ~~$CaCL_2$~~ $CaCl_2$.

Kindly replace the paragraph beginning on page 14, line 8, with the following:

Referring to figure 3, the valve 24 is reoriented so that access can be gained between the mixing syringe 26 and the reagents found in ampoules 32, 34, each of which are operatively connected to the manifold 22 via a Y coupling 36 shown in figure 1. Access to the interior of either ampoule 32 or 3 can be had by squeezing the

ampoule to rupture a frangible diaphragm. Alternatively, the intake 38 which receives the ampoule can be provided with a hollow spike which penetrates the diaphragm. In either event, the contents of both of the ampoules 32, 34 are received in the mixing syringe 26 by further retraction of the plunger 28 along the arrow A shown in figure 3. A first ampoule 32 is preferably provided with 2 ~~ml.~~ mL of ethanol providing an ~~ETOH~~ EtOH concentration in the final volume of 13.6% and the second ampoule 34 is preferably provided with 1 ~~ml.~~ mL calcium chloride providing a concentration in the final volume of .023~~μm~~ μM. Alternatively, these reagents contained within the two ampoules 32, 34 can be premixed into a single ampoule and dispensed simultaneously. In one form of the invention, it is possible to introduce the ethanol first, then agitate the mixing syringe 26 and then follow with the calcium chloride, but the introduction of both simultaneously to the plasma are optimally combined, followed by brief agitation.

Kindly replace the two paragraphs beginning on page 16, line 4, with the following:

Turning to figure 5, a graph is shown which illustrates how ethanol concentrations alter the life span of fast clotting thrombin where the calcium chloride content is held constant at ~~point~~ .023~~μm~~ μM. Note that at approximately 13.6% ethanol, its life span is shown to have been optimized and extend at least 240 minutes while its clotting time is substantially constant at under 5 seconds. The range between 8% and 18%, however, has utility.

Figure 6 varies the calcium chloride concentration in the thrombin while the ethanol is held constant at 13.6%. As shown, the thrombin life span where the final calcium chloride concentration is at .023~~μm of 250mM~~ μM (250 mM) calcium

chloride appears optimized and extends to 360 minutes while maintaining a clot time under 5 seconds. The range of final calcium chloride concentration between .011~~μm of 125mM~~ μM (125 mM) and .045~~μm of 500m M~~ μM (500 mM), however, has utility.

Kindly replace the paragraph beginning on page 16, line 20, with the following:

Figure 8 reflects the effect of using ethanol at 13.6% and calcium chloride at .023~~μm~~ μM to reduce proteins which alter the clot time of the thrombin as compared to the original plasma. As can be seen in this graph, the major interfering proteins are so efficiently removed, that the clotting time of the thrombin is not only enhanced, but held substantially stable and constant.

Kindly replace the first two paragraphs beginning on page 17, line 1, with the following:

Figure 9 shows in greater detail than that which is shown in figures 5 and 6 regarding the measured clot time as a function of life span for the optimized thrombin preparation, having been treated by 13.6% ethanol and .023~~μm~~ μM calcium chloride. As shown, the life span extends to 360 minutes and the clot time varies from 3 to 4 seconds.

Figure 10 shows the effect of saline solution ~~of~~ on the thrombin preparation optimized as in figure 9 with an ethanol concentration of 13.6% and a calcium chloride concentration of .023~~μm~~ μM as a function of life span. When the thrombin has been diluted 1 to 1.5 with saline, the clot time has been extended from just above 20 seconds to just less than 30 seconds, and has a life span of up to 150 minutes.

Kindly replace the paragraph beginning on page 17, line 18, with the following:

Figure 12 provides a prior art comparison of the activity of thrombin sourced from Bovine blood plasma as it relates to the speed of clotting, showing that autologous thrombin derived from this invention provides a clotting speed equivalent to 100 iu/~~ml~~ mL of Bovine thrombin.